IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(s):   ABUTALEBI, et al.

SERIAL NO.:   10/642,847   ART UNIT:

FILING DATE: 8/18/03   EXAMINER:

TITLE: METHOD AND SYSTEM FOR PROCESSING SUBBAND
               SIGNALS USING ADAPTIVE FILTERS

ATTORNEY
DOCKET NO.:   881-011446-US (PAR)

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT
(37 C.F.R. §1.97(b)(3))

Sir:

This information disclosure statement is being filed before the
mailing of a first Office Action on the merits.

The following information is being disclosed to the Patent and
Trademark Office as information that may be material to the
examination of the above-identified patent application.
Applicants' Attorney is aware of the following patents:

US 5,329,587

US 5,267,266

US 6,240,192 B1

US 6,236,731 B1

"Multirate Repeating Method for Alias Free Subband Adaptive Filters", Nishikawa, et al., IEICE TRANS. FUNDAMENTALS, VOL. E85-A, NO. 4 APRIL 2002, page 776-783

"Adaptive Filtering in Subbands with Critical Sampling: Analysis, Experiments, and Application to Acoustic Echo Cancellation", Gilloire, et al., IEEE TRANSACTIONS ON SIGNAL PROCESSING, VOL. 40, No. 8, August 1992, page 1862-1875

"Parallel DAF Measurement Device (PDMD) for Non-Instrusive Whitening of Speech", Wai Pang Ng, et al., page 1052-1056

"On the Use of A Modified Fast Affine Projection Algorithm in Subbands for Acoustic Echo Cancelation", Q. G. Liu, et al., INRS-Telecommunications, Proc. 1996 IEEE Digital Signal Processing Workshop, pages 354-357

"Double-Talk Robust Fast Converging Algorithms For Network Echo Cancellation", Tomas Gansler, et al., Proc. 1999 IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, New Paltz, New York, Oct. 17-20, 1999, pages 215-218

"Performance Comparisons of Two Adaptive Subband Structures", Mariane R. Petraglia, et al., 1996 IEEE, pages 235-238

"An Adaptive Filtering Algorithm Using an Orthogonal Projection to an Affine Subspace and its Properties", Kazuhiko Ozeki, et al., Electronics and Communications in Japan, Vol. 67-A, No. 5, 1984, pages 19-27

"RLS Algorithm for a New Subband Adaptive Structure with Critical Sampling", R.G. Alves, et al., 1998 IEEE, pages 442-447

"Sub-band Adaptive Signal Processing in an Oversampled Filterbank", pages 1-15

"Highly Oversampled Subband Adaptive Filters for Noise Cancellation on a Low-Resource DSP System", King Tam, et al., pages 1-4

"A Set of Algorithms Linking NLMS and Block RLS Algorithms", Mohsen Montazeri, et al., IEEE Transactions on Signal Processing, Vol. 43, No. 2, February 1995, pages 444-453

"Robust Fast Affine Projection Algorithm for Acoustic Echo Cancellation", Ville Myllyla, Darmstadt University of Technology, Institute of Communication Technology, pages 1-4

"Polyphase Analysis of Subband Adaptive Filters", Stephan Weiss, et al., pages 1-5

"On Adaptive Filtering in Oversampled Subbands", Stephan Weib, 1998, pages 1-213

"Frequency-Domain and Multirate Adaptive Filtering", John J. Shynk, IEEE SP Magazine, January 1992, pages 14-37

"Slow Asymptotic Convergence of LMS Acoustic Echo Cancelers", Dennis R. Morgan, IEEE Transactions on Speech and Audio Processing, Vol. 3, No. 2, March 1995, pages 126-136

ISCAS '98, Proceedings of the IEEE 1998 International Symposium on Circuits and Systems, IEEE Catalog Number: 98CH36187, "A Flexible Filterbank Structure For Extensive Signal Manipulations in Digital Hearing Aids", Robert Brennan, pages VI-569 – VI-572

"Adaptive Noise Cancelling: Principles and Applications", Bernard Widrow, et al., Proceedings of the IEEE, Vol. 63, No. 12, December 1975, pages 1692 – 1716
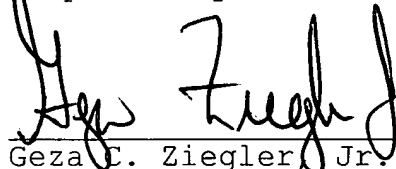
Copies of these references are enclosed together with a Form PTO-1449.

The filing of this Statement is not to be construed as a representation that a search has been made regarding the claimed invention (37 C.F.R. §1.97(g)) or that no other possible material information exists. In addition, the filing of this Information Disclosure Statement is not to be construed to be an admission that the information cited in the Statement is, or is considered to be, material to patentability (37 C.F.R. §1.97(h)).

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

Geza C. Ziegler, Jr.
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22 July 2005
Date

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CERTIFICATE OF MAILING

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INFORMATION DISCLOSURE CITATION FORM FOR PATENT APPLICATION (FORM PTO-1449) (Substitute)	Docket No.: 881-011446-US (PAR) Serial No.: 10/642,847 Applicant(s): ABUTALEBI, et al. Filing Date: 8/18/03 Group:

U.S. PATENTS

Initials	Patent Number	Issue Date	Name	Class	Sub-class	Filing date
	5,329,587	7/12/94	Morgan et al.	379	410	3/12/93
	5,267,266	11/30/93	Chen	375	14	5/11/92
	6,240,192	5/29/01	Brennan et al.	381	314	4/16/98
	6,236,731	5/22/01	Brennan et al.	381	316	4/16/98

U.S. PATENT PUBLICATIONS

Initials	Publication No.	Pub. Date	Name	Class	Sub-class	Filing Date

FOREIGN PATENT DOCUMENTS

Initials	Document Number	Date	Country	Name	Translation? Yes/No/n/a

OTHER DOCUMENTS (Title, Author, Date, Pages, Etc., if known)

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